

Claim Amendments

What is claimed:

14. (amended) An electric motor comprising:
a first body;
a plurality of magnetic components secured to the first body and located in at least first and second circular arrangements having a common axis and magnetic field lines forming across a first gap from each magnetic component of the first arrangement to each magnetic component of the second arrangement;
a board in the first gap being of a majority of nonmagnetic solid material, a majority of the magnetic field lines passing through the substantially nonmagnetic solid material across the first gap;
at least one electrical circuit element located on the board in the first gap, the magnetic field lines passing through the electrical circuit element; and
at least a first bearing securing the board to the first body to allow the electrical circuit element to rotate along the axis of the bearing relative to the first body, the electrical circuit element having at least first and second electrical paths, the first path having a section located in the gap and extending transverse to the magnetic field lines so that a current therein causes rotation thereof about the

common axis, the second path having a section located in the gap and extending transverse to the magnetic field lines so that a current therein causes rotation thereof about the common axis.

15. (amended) The electric motor of claim 14 wherein the board and the electrical circuit element form a printed circuit board.

16. The electric motor of claim 14 wherein the magnetic components are permanent magnets.

17. The electric motor of claim 14 wherein the magnetic components are electromagnets.

18.(canceled)

19. (amended) An electric motor comprising:
a first body;
a plurality of magnetic components secured to the first body and located in first and second rows substantially parallel to each other and magnetic field lines forming across a first gap from each magnetic component of the first row to each magnetic component of the second row, a board in the first gap being of a majority of nonmagnetic solid material, a majority of the magnetic field lines passing through the substantially nonmagnetic solid material across the first gap;

at least one electrical circuit element located on the board in the first gap, the magnetic field lines passing through the electrical circuit element; and at least a first bearing securing the board to the first body to allow the electrical circuit element to move along an axis relative to the first body, the electrical circuit element having at least first and second electrical paths, the first path having a section located in the gap and extending transverse to the magnetic field lines so that a current therein causes translation thereof along the common axis, the second path having a section located in the gap and extending transverse to the magnetic field lines so that a current therein causes translation thereof along the common axis.

20. (amended) The electric motor of claim 19 wherein the board and the electrical circuit element form a printed circuit board.

21. The electric motor of claim 19 wherein the magnetic components are permanent magnets.

22. The electric motor of claim 19 wherein the magnetic components are electromagnets.

23.(canceled)

Claim Amendments

What is claimed:

14. (amended) An electric motor comprising:

a first body;

a plurality of magnetic components secured to the first body and located in at

least first and secondcircular arrangements having a common axis and magnetic

field lines forming across a first gap from each magnetic component of the first

arrangement to each magnetic component of the second arrangement;

a board in the first gap being of a majority of nonmagnetic solid material, a

majority of the magnetic field lines passing through the substantially

nonmagnetic solid material across the first gap;

at least one electrical circuit element located on the board in the first gap, the

magnetic field lines passing through the electrical circuit element; and

at least a first bearing securing the board to the first body to allow the electrical

circuit element to rotate along the axis of the bearing relative to the first body, the

electrical circuit element having at least first and second electrical paths, the first

path having a section located in the gap and extending transverse to the

magnetic field lines so that a current therein causes rotation thereof about the

Deleted: 1-13. (canceled)

Deleted: new

Deleted: two

Deleted:

Deleted:

Deleted: an area of the board

Deleted: having the

Deleted: substantially

Deleted: each

Deleted: being pierced by the
magnetic field lines and having two
faces substantially parallel to each
other and perpendicular to the axis

Deleted: one

Deleted: electrical circuit element

Deleted: ; and

Deleted: 1

Deleted: two

Deleted: of each electrical circuit
element

common axis, the second path having a section located in the gap and extending transverse to the magnetic field lines so that a current therein causes rotation thereof about the common axis.

15. (amended) The electric motor of claim 14 wherein the the board and the electrical circuit element form a printed circuit board.

Deleted: new

Deleted: electrical circuit component is

Deleted: (new)

16. The electric motor of claim 14 wherein the magnetic components are permanent magnets.

Deleted: (new)

17. The electric motor of claim 14 wherein the magnetic components are electromagnets.

18.(canceled),19. (amended) An electric motor comprising:

a first body;

Deleted: (new)

Deleted: The electric motor of claim 17 wherein the magnetic components are secured to the first body, the first body being secured to a force reflection device.¶

Deleted: new

Deleted: at least two

a plurality of magnetic components secured to the first body and located in first and second rows substantially parallel to each other and magnetic field lines forming across a first gap from each magnetic component of the first row to each magnetic component of the second row, a board in the first gap being of a majority of nonmagnetic solid material, a majority of the magnetic field lines passing through the substantially nonmagnetic solid material across the first gap;

Deleted: having the

at least one electrical circuit element located on the board in the first gap, the magnetic field lines passing through the electrical circuit element; and

Deleted: each

Deleted: being pierced by the magnetic field lines and having two faces substantially parallel to each other and perpendicular to the magnetic field lines

at least a first bearing securing the board to the first body to allow the electrical

Deleted: one
Deleted: electrical circuit element
Deleted:; and

circuit element to move along an axis relative to the first body, the electrical

Deleted: ¶
Deleted: two
Deleted: of each electrical circuit element

circuit element having at least first and second electrical paths, the first path

Deleted: rotation
Deleted: about

having a section located in the gap and extending transverse to the magnetic

field lines so that a current therein causes translation thereof along the common

Deleted: rotation

axis, the second path having a section located in the gap and extending

Deleted: about

transverse to the magnetic field lines so that a current therein causes translation

Deleted: new

thereof along the common axis.

Deleted: electrical circuit component
is

20. (amended) The electric motor of claim 19 wherein the the board and the

Deleted: (new)

electrical circuit element form a printed circuit board.

21. The electric motor of claim 19 wherein the magnetic components are

Deleted: (new)

permanent magnets.

22. The electric motor of claim 19 wherein the magnetic components are

Deleted: (new)
Deleted: The electric motor of
claim 22 wherein the magnetic
components are secured to the first
body, the first body being secured to
a force reflection device. ¶

electromagnets.

23. (canceled).